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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,749	06/19/2003	Shigeru Sugaya	7217/69506	6001

530 7590 03/13/2007  
LERNER, DAVID, LITTENBERG,  
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WESTFIELD, NJ 07090

EXAMINER
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WONG, BLANCHE

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/600,749

Applicant(s)

SUGAYA, SHIGERU

Examiner

Blanche Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 17 is/are allowed.
- 6) ☒ Claim(s) 1,2,6,8,12,15,18,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 3-5,7,9-11,13,16 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date Jan06, Nov06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the beacon transmitting means, interference detecting means and buffer frame period setting means (claim 2); beacon information receiving means, beacon information detecting means, collision detecting means and interference informing means (claim 14) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 15 and 18** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 15 and 18, it is unclear what is "a redundant time" in line 3.

### *Claim Rejections - 35 USC § 101*

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 20 and 21** are rejected under 35 U.S.C. 101 because a computer program is a non-statutory subject matter. A computer program is purely an abstract

idea whereas e.g. a computer readable medium storing a computer program, supports a statutory/hardware system.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1,2,6,8,12** are rejected under 35 U.S.C. 102(b) as being anticipated by Fujita et al. (U.S. Pat No. 5,412,659).

With regard to claim 1, Fujita discloses a radio communication system comprising:

a plurality of wireless networks (**cells, col. 1, line 19**), each wireless network (**cell**) including a plurality of radio communication apparatuses (**mobiles, col. 1, line 18**) and a control station (**cell-site base station, col. 1, line 18**) allocating a resource (**down-link frames for transmission of signals in a direction from the base station to the mobile stations, col. 1, line 50**) to each radio communication apparatus of said plurality of radio communication apparatuses (**mobile stations**),

wherein, upon detection of interference between networks of said plurality of wireless networks (**detecting an inter-cellular interferences, col. 1, lines 36-37**), a buffer frame period (**control slot in Fig. 5; see also a signaling message from the cell-site controller is inserted into the control slot, col. 2, lines 52-54**) that is

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different from a transmission frame period (**information slots in Fig. 5**) is set in one of the interfering networks so as to adjust a positional relationship of frame periods (**retransmission**) (**The effect of the buffer is to produce a copy of the signaling message for retransmission if a previously transmitted signal is corrupted by data collision, col. 3, lines 43-46**) used by the interfering networks.

With regard to claim 2, Fujita discloses a radio communication apparatus comprising:

beacon transmitting means (**controller**) for setting a transmission frame period of a local network (**retransmission of message**) and transmitting beacon information (**signaling information**) regarding resource allocation (**frame is busy or not**) (**controller ... to generate a signaling message ... to determine whether the next up-link frame is busy or idle ... determine whether a previously sent message is properly received or not ...**, col. 3, lines 35-43 and **... to transmit the stored message if a previous transmission is found to be futile, col. 3, lines 47-48**) at a predetermined position (**appropriate time slots**) of the transmission frame period (**signals from mobile stations, either information or signaling messages, are transmitted on appropriate time slots, col. 2, lines 62-64**);

interference detecting means (**controller**) for detecting whether the local network interferes with another network (**determine whether a previously sent message is properly received or not**); and

buffer frame period setting means (**controller**) for setting a buffer frame period having a different frame period to change the position of a transmission frame period

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upon detection of interference between network **(transmit the stored message if a previous transmission is found to be futile)**.

With regard to claim 6, Fujita discloses an interference detecting means **(controller)** detects interference between networks based on information from a radio communication apparatus **(mobile station)** in the local network **(controller provides an overall control of the mobile station, col. 3, lines 35-36)**.

With regard to claim 8, see analysis for claim 2.

With regard to claim 12, see analysis for claim 6.

***Allowable Subject Matter***

8. **Claims 14 and 17** are allowed.

9. Claims 3-5,7,9-11,13,16,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 15 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 14 and 17, the prior art of record fails to anticipate or make obvious a radio communication apparatus comprising: "beacon information receiving means for receiving beacon information from a control station of a local network in a predetermined beacon information receiving range; beacon information detecting means for detecting beacon information from a control station of another network; collision detecting means for detecting whether beacon information of the local network collides with beacon information of another network; and interference informing means for notifying a control station of the local network of a beacon information collision detection result.

Fujita discloses beacon transmitting means (**controller within mobile station, see analysis for claim 2**) and beacon information receiving means (**cell-site base station**). Fujita does not teach a beacon information receiving means for receiving beacon information from a control station of a local network or from a control station of another network. Haas et al. (U.S. Pat No. 5,577,168) discloses beacon-based cellular system and teaches local and other networks (**cells, col. 3, line 8**) and beacon collision (**col. 3, line 38**). However, Haas fails to teach a collision detecting means for detecting whether beacon information of the local network collides with beacon information of another network, or an interference informing means for notifying a control station of the local network of a beacon information collision detection result.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RW

BW  
February 27, 2007

A handwritten signature in black ink, appearing to read 'Huy D. Vu', with a long horizontal line extending to the right.

HUY D. VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600